

CLAIM AMENDMENTS

Please amend the claims as follows:

Claims 1-68 (canceled)

69. (previously presented) A method of imaging a substrate in a dual-beam secondary electron emission microscope by detecting both secondary and reflected electrons, comprising:

- a) exposing said substrate to a dual beam comprising an influx of relatively high-energy electrons, said high-energy electrons having an energy selected to cause secondary electrons to leave said substrate, and an influx of relatively low-energy electrons, said electrons having a sufficiently low energy so that a substantial portion of said electrons are reflected from a surface of said substrate and both an energy and a current density profile selected to maintain surface charge present on said substrate at a predetermined level, wherein said influxes of high-energy and low-energy electrons are provided at a same time in said dual beam,
- b) filtering said secondary electrons and the portion of said relatively low-energy electrons which are reflected from the surface of said substrate, in order to select most or all of said secondary electrons which are emitted at angles other than perpendicular to the substrate and most or all of said reflected electrons which are scattered away from the specular angle, and to reject most or all of said secondary electrons which are emitted at an angle perpendicular to the substrate and most or all of said reflected electrons which are scattered at the specular angle,
- c) focusing said selected secondary electrons and said selected reflected electrons to create an image of said substrate in a plane of a detector, and
- d) detecting said selected secondary electrons and selected reflected electrons, thereby imaging a portion of said substrate.